CHAPTER TWO

PALEOINDIAN LIFE IN THE CHESAPEAKE REGION

18,000 TO 9,900 YEARS AGO

MAJOR DEVELOPMENTS

- ☐ Pre-Clovis possibilities, 18,000 to 11,500 years ago
- ☐ Paleoindian period, 11,500 to 9,900 years ago
- ☐ Early Paleoindian phase, 11,500 to 10,400 years ago
- ☐ Middle Paleoindian phase, 10,800 to 10,200 years ago
- ☐ Late Paleoindian phase, 10,400 to 9,900 years ago

SIGNIFICANT EVENTS

- ☐ The most recent glacial ice-sheets begin to retreat 18,000 years ago.
- ☐ Possible pre-Clovis occupation of the region beginning around 18,000 years ago.
- ☐ Paleoindian people using Clovis points first come to the Chesapeake by 11,500 years ago.
- ☐ Clovis points are replaced by a variety of smaller stemmed and notched projectile points, 10,400 years ago.
- ☐ Pleistocene megafauna, such as American mammoth and giant beaver, become extinct as the most recent Ice-Age ends 10,000 years ago.
- ☐ Modern mixed hardwood forests begin to dominate the environment of most areas of the region by 9,900 years ago as rising temperatures melting glacial ice raise sea level worldwide and rising waters begin to form the outline of the modern Chesapeake Bay.

AN ECOLOGY OF PLACE AND PEOPLE

Place

People first came to the region at the end of the most recent Ice-Age sometime between 18,000 and 11,500 years ago. Several types of geological evidence affirm that the Chesapeake region looked much different then than it does today. As in earlier times, our guesses about how it looked come in part from rocks, sands, gravels, and soils, which preserve records of Late Pleistocene land surfaces and waterways. Carbon 14 tests and other radiometric dating techniques reveal the ages of charcoal, bone, and other organic matter preserved in buried soil layers. Much of this material has been brought to the surface in cores drilled into ancient Ice-Age lake beds and swamps, such as Virginia's Great Dismal Swamp. Analyses of bones, charred wood and plants, and pollen found in pits, shell heaps, and other Paleoindian archeological deposits elsewhere in North America also furnish evidence of what the Chesapeake environment might have been when people first came to the region.

This evidence suggests that Paleoindians arrived during a colder and wetter time, when the ice-sheets of the most recent glacial advance (known among specialists as the Wisconsin glaciation) were retreating northward. Chesapeake lands themselves were never covered by Wisconsin ice-sheets. Instead, they lay over a hundred miles and more below the long ridges of gravel rubble known as moraines. These moraines marked the southernmost point reached by the ice-sheets. While it was spared the devastation caused by glacial ice itself, the region experienced that power indirectly. Vast volumes of cold, muddy glacial meltwaters from the ice's margin surged down the region's streams and rivers, and Ice-Age ancestors of today's Susquehanna, Potomac, and James rivers - laden with stone rubble and sediment scraped up by the glaciers -

gouged wide valleys through soft Piedmont limestones. Evidence of the power of these waters can be glimpsed in places such as Pennsylvania's Falmouth Potholes. Unlike that soft rock, harder rocks such as quartzite and granite resisted the force of meltwaters. Today, these rocks rise up over Piedmont valleys as majestically isolated hills, ranges, and monadnocks. Farther east, those same ancestral Chesapeake rivers deposited vast layers of sand, soil, and gravel across a coastal plain extending out as much as ninety miles beyond the present shoreline, into an ocean that had been lowered 160 feet because so much water was locked in glacial ice.

The Bay as we know it did not exist during Ice-Age times. Instead, it was a part of the wide, flat coastal plain. The often shifting channels of the ancestral Susquehanna, Potomac, Rappahannock, and James rivers wended their ways through its sand and gravel surface. Initially gravel choked and barren, the coastal plain became a place of shallow swamps, lagoons, and grasslands as the glaciers retreated and shrank, lowering the volume and velocity of the region's rivers.

Stands of spruce, pine, hemlock, birch, and alder trees began to establish themselves as conditions grew warmer and wetter 12,000 years ago. Examples of these types of forests survive in small, isolated parts of the southern Virginian Piedmont at the Tye River Hemlock-Beech Slopes, the James River Arborvitae Bluff, and the Big Otter River Hemlock Slope. Forests such as these sheltered and supported a vast array of late Ice-Age plants and animals. Some, such as the American mammoth and mastodon, the Eastern short-faced bear, and the giant beaver, are now extinct. Others, such as caribou, elk, and American bison, no longer live in the region. But many animals alive at that time were species familiar to us, such as the white-tailed deer, black

bear, beaver, and wild turkey that flourish in Chesapeake habitats today. A wide variety of saltwater and freshwater fish, birds, reptiles, amphibians, and invertebrates also lived in the region.

Environmental conditions grew more moderate throughout the period. Water from glaciers, melted by warmer weather, flooded into the oceans and raised sea levels worldwide. In the Chesapeake area, rivers began finding their present courses as rising ocean waters gradually flooded low lying continental shelf lands. By the end of the late Pleistocene period, oak, hickory, and maple forests were growing along shorelines. The boundaries of these shorelines were beginning to resemble those that present Chesapeake region residents would recognize.

People

The origins of the first people to settle in this region remain a mystery. Neither scientists nor Native American traditionalists have yet conclusively discovered the identity of the region's earliest inhabitants. Most generally agree that Native Americans were the first, and - for all but the most recent of the past 120 or so centuries - the only people living in the Chesapeake region. Traditions of present day Native American residents such as the Piscataways, Nanticokes, and Powhatans affirm that their ancestors have always been here. Scientists intent on reconstructing past Indian cultural traditions struggle to decipher the meanings of scattered fragments of stone, bone, clay, ash, and stained soil. These are the only surviving identifiable tangible physical evidence of early human occupation in the region.

Nor do we know for certain when people first arrived. Some Indians believe they are descended from people who lived along Chesapeake shores when the world began. Others believe their ancestors came from elsewhere. Archeologists also hold differing views. Some think

Paleoindians first arrived from somewhere farther south or west sometime between 12,000 and 11,500 years ago. Their appearance is marked by distinctive, carefully crafted, lance shaped three- to six-inch-long projectile points made of chipped stone. Known as Clovis points (after the New Mexico locale where they were first identified), these graceful, sharp tipped weapons are dulled along their lower edges so they will not cut the sinew or cord bindings that fastened them to spear shafts or handles. All were intentionally made thinner by the flaking off of long, slender fluted channels of stone from their sides.

A small but growing group of archeologists think that people using less specialized tools of chipped stone may have arrived several thousand years earlier. They point to evidence found in places such as the Cactus Hill site, just south of the Chesapeake in Virginia's Nottoway River Valley. Although archeologists debate entry dates and immigration routes, all agree that the Chesapeake's earliest people are descendants of the first humans, who originated in Africa millions of years ago.

Most archeologists today divide the period when the Paleoindians occupied the Chesapeake into three overlapping phases. Each is marked by distinctive types of stone projectile points. The Early Paleoindian phase, from 11,500 to 10,400 years ago, is marked by the Clovis points described above. Sites associated with the Middle Paleoindian phase, between 10,800 and 10,200 years ago, tend to contain both Clovis and other forms of fluted and unfluted, lance-like points. The presence of Dalton points, which are small, fluted and unfluted, side notched points with deeply curved concave bases, is considered a key diagnostic marker for the Late Paleoindian phase in the region, from 10,400 to 9,900 years ago.

Most other things made and used by the region's past inhabitants are perishable and have long since decayed. The presence of durable objects such as stone tools, bone, shell, and wood at archeological sites affirms that these people relied on tools and weapons made from naturally available materials to survive in their late Ice-Age environment. They gathered smoothed river cobblestones for quartz and mined a hard, flint-like, glassy surfaced stone called chert from outcrops at places such as the Martin site in Virginia and the Higgins site in Maryland. Other kinds of rocks and minerals came from elsewhere. Hard, brownish red jasper and milky white rhyolite were quarried from nearby Appalachian Mountain formations. Black and dark green Onondaga cherts came from upstate New York. Colorful Flint Ridge cherts with brown, red, and yellow bands were imported from as far away as the Ohio Valley.

Like all people, Native American tool makers tended to favor certain types of raw materials and manufacturing styles at certain times. Paleoindians particularly relied on high quality cherts that were strong, easily worked, and able to retain sharp edges of long periods of time. They made projectile points, knives, scrapers, and other stone tools out of cherts, then affixed them to wood, bone, or horn shafts and handles. Discoveries of far more numerous chipped stone scrapers, knives, and the sharp edged cracked stone flakes produced during tool making show that projectile points were only a small part of the light, portable, and reusable Paleoindian toolkit. Such tools were essential for people who had to travel far, fast, and often. They generally journeyed on foot, carrying as little as possible, to take advantage of frequently distant and widely scattered resources only available in certain places or at certain times.

Preserved caribou bones, turtle and fish skeletons, bird eggs, and charred nut shells found with Paleoindian tools in other sites in eastern North America indicate some of the plants and

animals hunted and gathered by Chesapeake Paleoindians. Discoveries of sharp bone and horn needles, and stone scrapers used to remove flesh from animal hides, show that Paleoindians made and wore clothing made of skins. And discoveries of layers of ash and charcoal, which we identify as former hearths and fire places, affirm that these people used fire for cooking, warmth, and light.

Little is known about Paleoindian housing and settlement patterns. What is left at most of the known sites are small scatterings of cracked rocks and artifacts - the remains of temporary camps left by hunting and gathering people everywhere. Many sites of Paleoindian occupation are found in flat, open areas that offer commanding views of the surrounding terrain. At one such site, the Thunderbird National Historic Landmark which lies just west of the region in the Shenandoah Valley near Front Royal, Virginia, archeologists have uncovered a circular ring of post-molds; small, cone shaped soil stains that are believed to be the remains of the sharpened tips of support posts and poles used to hold up shelters. This post-mold pattern is a unique find - one of the earliest known examples of the type of small sapling framed houses made of bark, grass, or skin that were erected at such sites. Discoveries of Paleoindian artifacts beneath rock overhangs in places such as Pennsylvania's Meadowcroft site, west of Pittsburgh, suggest that Chesapeake Paleoindians also lodged in rock shelters at the bottoms of coastal plain cliffs and Piedmont hillsides.

The majority of Paleoindian sites are near reliable sources of both water and rock that can be worked into tools and weapons. More than a few lie near rivers, passes, and other key transportation routes. These sites are far apart, and the remaining deposits indicate that they were of modest size - individual activity areas are rarely larger than a hundred square feet. Together,

these factors suggest that the Chesapeake's first people lived in small, mobile bands made up of several related families and friends.

THE PALEOINDIAN CULTURAL LANDSCAPE

Peopling Places

Very little is presently known about population, health, and other matters of demographic interest affecting the Paleoindian cultural landscape in the region. Few intact sites and no clearly identifiable human remains dating to the period have thus far been found in either the coastal plain or the Piedmont. The complete absence of human remains suggests that Paleoindian people either cremated their dead or exposed them to the elements in a manner similar to that practiced by other more recently documented traditional societies. To interpret the demographic significance of the few clearly diagnostic stone tools from the period found in Chesapeake locales, we must depend on data from more intact deposits in nearby areas. Such information exists at the Shoop site above Harrisburg, Pennsylvania, the earlier mentioned Thunderbird National Historic Landmark in Front Royal, Virginia, and the Cactus Hill and Williamson sites in southeastern Virginia.

The date of arrival, demographic composition, and settlement patterns of the first humans in the region are presently unknown. But from the relatively small size of their tools, their wide distribution, and the diverse source materials used to make them, we can surmise that Chesapeake Paleoindians were nomads. They probably organized themselves into small, mobile bands of ten to fifty people ranging across territories of up to several thousand square miles. While these are tiny groups by modern standards, such numbers closely match population figures documented in more

recent times among the Canadian Arctic Inuit, the San people of southern Africa's Kalahari Desert, and other hunting and gathering societies living in challenging environments.

Physical evidence of Paleoindian cultural landscapes survives in layers of intact, buried soil at places such as the Paw Paw Cove site complex in Maryland's coastal plain. We find other information by analyzing stone sources, use patterns, and style differences among Paleoindian projectile points and other tools. Analyzable assemblages of such tools have been found in various sites throughout the regional, dredged up from the floors of its rivers and bay waters, and scattered on the surface of its lands.

Creation of Social Institutions

Recognizable physical evidence of the imprint of Paleoindian social life on the region's cultural landscape also is hard to find. As mentioned, known sites are small and scattered, a pattern which suggests that Paleoindians depended on small, flexible, and highly mobile social groups to make use of natural resources that were often far apart and only periodically available. Discoveries of stones in the region that came from as far away as New York, Ohio, and the Carolinas suggest that people belonging to these societies moved across large areas and occupied varied environments.

Anthropologists working with societies such as the San and the Inuit have found that hunting and gathering people tend to organize themselves into small bands bound together by ties of kinship and agreement. What these ties were and how they operated in Paleoindian society are presently unknown, though we can surmise that these groups had to be flexible socially, because

they would have needed to gather together or break into smaller groups to meet challenges and exploit opportunities posed by their environment.

As with other aspects of Chesapeake Paleoindian life, we hope to find further physical evidence of these people's social impact on the region's cultural landscape in layers of intact buried soil. By analyzing stone sources, tool use, wear, and style differences, we may gain new insights into Paleoindian family life and other social institutions.

Expressing Cultural Values

No objects or locales clearly symbolizing Paleoindian cultural values or beliefs in the region are presently known. Some scholars believe that distinctive projectile point styles or tool kits represent particular cultural traditions. Such objects occur widely across entire regions of the continent. Their differences may simply more closely express stylistic preferences or technological needs than unique cultural values.

Some images painted on or pecked with stone hammers into rocks, boulders, and cliffs - known to specialists as pictographs or petroglyphs - have been found at places such as Safe Harbor (on the Susquehanna River in the Pennsylvania Piedmont) and other locales. Some of these may one day be found to date to Paleoindian times. There may also be bone, horn, or shell objects, sculpted into animal or abstract forms or decorated with symbolic images, waiting to be found. These could possibly represent cultural identity, values, or beliefs - as evidently those found in Upper Paleolithic sites throughout western and central Europe do. We might also be able to see Paleoindian cultural values reflected in the locations and distributions of places containing such findings.

Shaping the Political Landscape

As mentioned earlier, archeological evidence indicates that Chesapeake Paleoindians lived in small, mobile groups occupying large territories. Such groups often depend on political decision making systems that are cooperative and flexible. These qualities are essential to people who depend on the natural environment and must rely on one another for survival. As seen in similar societies elsewhere and remembered in present day Native American oral traditions, these types of political organization usually require close kinship ties, widespread social networks, and the abilities of leaders to lead by the power of persuasion rather than the persuasion of power.

We may find evidence of decision making - group movement choices, hunting group coordination, and ways of preserving, storing, and distributing food - in thus far undiscovered intact kill sites, storage caches, and other deposits containing ancient remains of butchered game animals in the region. Future discoveries of objects symbolizing group political life and organization also may provide new insights into political aspects of the Paleoindian cultural landscape.

Developing the Chesapeake Economy

More is known about the way the economy shaped Paleoindian life during this period. Discoveries of stone cobbles, cores, flakes, and tools, and, more rarely, charred bits of wood, nut shells, and other plant remains preserve a record of the types of tools and raw materials used by Paleoindian people in various parts of eastern North America. Most materials used were locally available, suggesting that people practiced domestic forms of production. Discoveries of materials, artifact

types, and decorative styles from elsewhere further suggest that some goods were taken from or exchanged with people living far beyond the region's borders.

Many archeologists believe that the Paleoindian's need for high quality stones to make the best possible tools and weapons compelled them to center their settlement patterns around quarries at stone outcrops and other sources. The contents of Paleoindian tool kits, dominated as they are by piercing, cutting, and scraping implements, are also revealing. They suggest the economic importance of animal flesh and fur. And the widespread distribution of small sites affirms that Paleoindians had to travel often to particular places to use resources available for limited periods of time, and that they had to move on when those resources disappeared, were used up, or (as with animals) wandered away.

Expanding Science and Technology

Like all people, Paleoindians relied on tested techniques and searched for new solutions to meet the demands of their world. They had to continually expand their frontiers of science and technology to adapt to their unfamiliar, changing, and challenging environment. For instance, Paleoindian hunters used new thinning techniques invented elsewhere in North America to produce lighter and longer projectile points with sharper and more extensive cutting edges. Tool makers thinned these points by removing long flakes from their sides, allowing the points to be more securely inserted into the notched ends of knife handles and spear shafts. Secure within their sockets and handles, slender points possessing great piercing power were less likely to break or shatter under stress. Evidence found elsewhere in North America suggests that Chesapeake Paleoindians also bred domesticated dogs. They probably used these dogs for companionship, for

camp sanitation (eating refuse and killing vermin), to carry or drag light loads and help with hunting, and probably as food. Future discoveries of such things as water craft, storage containers, evidence of preservation techniques, and medicinal plant remains will provide new insights into the ways Paleoindians used science and technology.

Transforming the Environment

The evidence shows that massive climatic changes transformed Chesapeake environments during Paleoindian times. We see this both in the transition from mostly softwood to mixed hardwood forests and in the final disappearances of mammoths, mastodons, caribou, walruses, and other species now extinct or living elsewhere. The roles people played in these transformations are the subject of considerable debate. Discoveries of thin coatings of ash on ancient tree rings and soil strata suggest that the earliest Americans may have practiced the kinds of forest and field burning that European settlers saw Indians use during colonial times. But no recognizable evidence shows that Paleoindian burning played a significant role in regional forest transformations at the end of the last Ice-Age. The impact of hunting on the disappearance of many animal species at this time is less clear. Many scientists believe that climate changes were responsible; others think that the arrival of hunters into new environments drove some species away and pushed others that were already stressed by climatic change to extinction.

Little clearly identifiable evidence survives to show how Paleoindian people made their way through Chesapeake lands. Although they almost certainly used passes such as the Massanutten Gap in Virginia to cross high mountain ranges, we find no lingering traces of paths they might have used there or elsewhere. We know that rivers, streams, and bay waters also

served as transportation routes, but we do not know if they used simple rafts or more sophisticated dugout canoes or skin boats.

We may find new insights into the human role in transforming Chesapeake Ice-Age environments in future recoveries of water craft and other transportation artifacts; discoveries of plant, animal, and tool samples large enough to support generalizations; and development of new techniques to more clearly link people to their environments.

Changing Role of the Chesapeake in the World Community

The coming of people to the Chesapeake linked the region with worldwide events affecting the entire human family. Both the first people moving the region and those who followed brought tools, skills, and beliefs originally developed to confront challenges posed by other places and times. Archeological evidence indicates that Chesapeake people continually refined their tools and techniques and adopted new technologies and ideas coming from as far away as East Asia and from as near as the Tennessee and Ohio River Valleys. The fact that most Chesapeake Paleoindians primarily used locally available raw materials indicates that the region's inhabitants rarely ventured very far from their home territories. Yet the presence of imported stone in regional site deposits, along with the appearance there of new technologies such as the spear thrower and notched projectile points (first used by people living farther south and west), shows that ideas and materials sometimes came from elsewhere. One thing we know for certain is that the Chesapeake cultural landscape changed dramatically during the final phase of the Paleoindian period.

KEY LOCALES

Delaware
- Delaware Chalcedony Complex Area
- Iron Hill

Maryland
- Higgins
- Paw Paw Cove
- Pierpont

Pennsylvania
- Conestoga Valley Complex
- Washington Boro

Virginia
- Carpenter
- Catoctin Creek
- Dime
- Henrico Springs
- Isle-of-Wight
- Marine Spring Branch
- Point-of-Rocks
- Quail Springs
- Richmond

FURTHER INFORMATION

Up-to-date information on the period may be found in:

Jay F. Custer, *Prehistoric Cultures of Eastern Pennsylvania* (1996:91-131).

Richard J. Dent, Jr., *Chesapeake Prehistory* (1995:69-145).

Theodore R. Reinhart and Mary Ellen N. Hodges, editors, *Early and Middle Archaic Research in Virginia* (1990).

Mark J. Wittkofski and Theodore R. Reinhart, editors, *Paleoindian Research in Virginia* (1989).